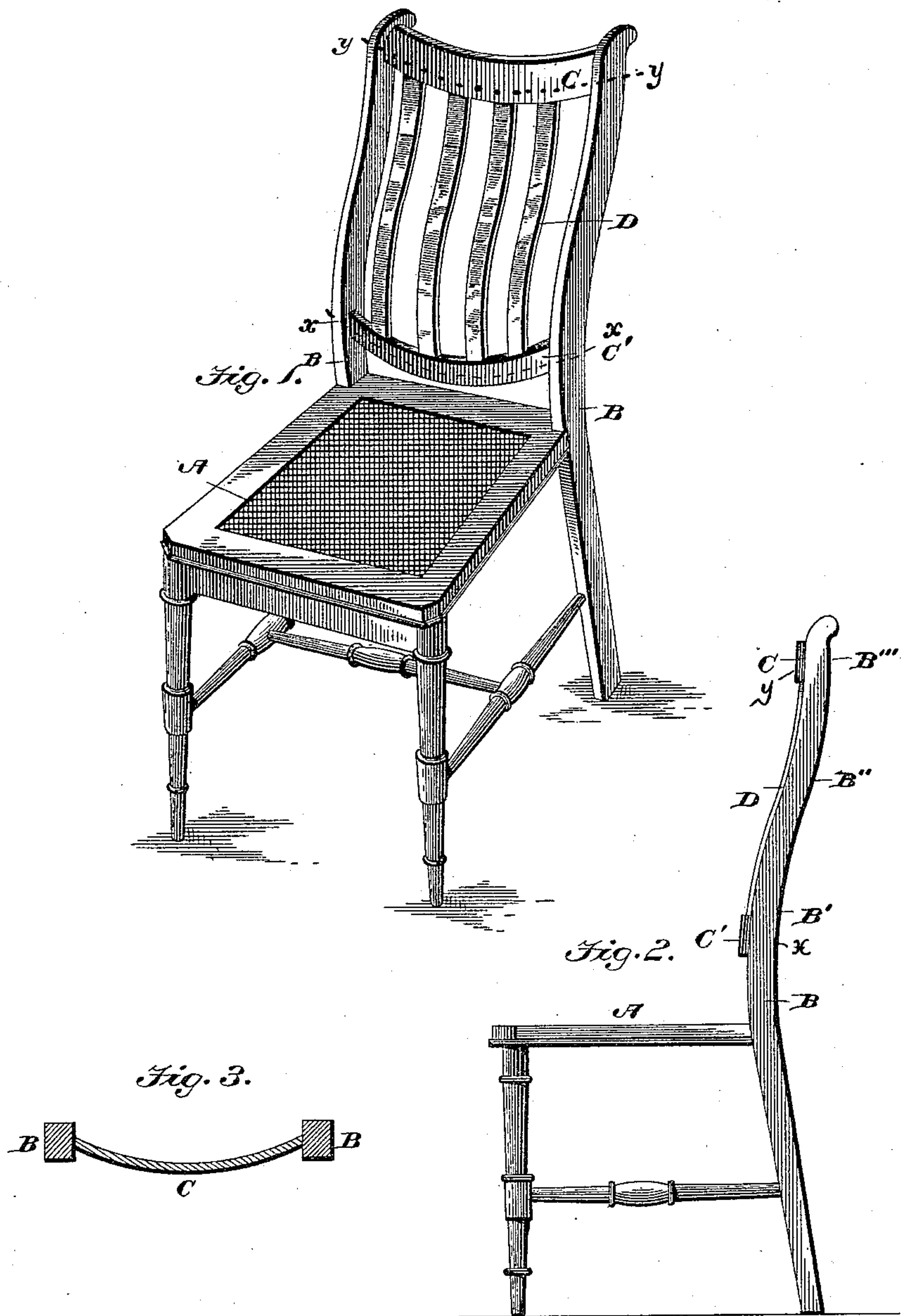


(No Model.)

L. A. BANGS.  
CHAIR.

No. 458,140.

Patented Aug. 18, 1891.



Witnesses.

Harry S. Rohrer  
C. H. Berry

Inventor:

L. A. Bangs

By

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Attorneys.

# UNITED STATES PATENT OFFICE.

LOIS A. BANGS, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO  
MARY B. WHITON.

## CHAIR.

SPECIFICATION forming part of Letters Patent No. 458,140, dated August 18, 1891.

Application filed November 24, 1890. Serial No. 372,450. (No model.)

*To all whom it may concern:*

Be it known that I, LOIS A. BANGS, a resident of Brooklyn, in the county of Kings and State of New York, have invented certain  
5 new and useful Improvements in Chairs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

10 It is the object of the invention to produce a chair not differing widely in appearance from ordinary forms, but that shall more perfectly support the shoulders and spinal column when in a comfortable and healthful  
15 position. It is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of the complete chair; Fig. 2, a side elevation of the same; Fig. 3, a horizontal section at the point  
20  $x$  or  $y$ , Fig. 1.

In the drawings, A is the seat, and B B are side posts for the chair-back. The latter are perfectly continuous with the rear seat-supporting legs. Above the seat the posts incline  
25 forward, then bend rearward somewhat sharply in a curve corresponding in position to the "small of the back," and thence extend upward and rearward to a point corresponding to the position of the shoulders, where they  
30 again curve slightly forward. They are connected at two or more points by forwardly convex cross-bars C, and these are connected by a series of bars D, nearly identical in curvature with the parts of the posts that lie in  
35 the same horizontal plane. The whole back thus constructed in vertical section is doubly curved—forwardly convex at the lower part

and forwardly concave at the upper part—and in horizontal sections is at all points forwardly convex. It is thus adapted to support  
40 nearly the whole length of the spine and at the same time the parts upon each side thereof, whether or not the person occupies precisely the middle of the chair, and whatever the position the shoulders are not pressed forward so  
45 as to compress the chest or interfere with the perfect action of its muscles.

The material used in construction is preferably wood, and it is essential that the parts be so far rigid that the convex portions re-  
50 main convex at all times. If the lower cross-bar be placed at the point B' and the bars D be omitted, the chair will still be valuable, though less satisfactory.

What I claim is—

1. A chair-back having side posts connected by forwardly convex cross-bars in position to support, respectively, the shoulders and the lower portion of the back, as set forth.

2. A chair having the side posts of its back  
60 conformed approximately to the normal front and rear curvature of the spinal column and connected at points corresponding to the position of the shoulders and the lower portion of the back by forwardly convex cross-bars, 65 which are themselves united by bars similar in curvature to said side posts.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

LOIS A. BANGS.

Witnesses:

MARY B. WHITON,  
FRANK HARDY.